From: nancy munn

To: <u>Sean Sheldrake/R10/USEPA/US@EPA</u>

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Subject: Re: Fw: Weir discharge evaluation - T4 CDF

Date: 04/23/2009 08:09 AM

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I have no problem. However, note that the biological opinion will state that the action will not be covered for an overflow at the cdf weir, if a cdf is permitted at all.
Nancy Munn, PhD
Sheldrake.Sean@epamail.epa.gov wrote:
> All.
> Please see the attached. I don't see a problem agreeing to strike the > analysis with a commitment of project shutdown should overflow be
 > Let me know if you have any concerns.
 > Thank you.
      Sean Sheldrake
     USEPA, Region 10
Environmental Cleanup Office
      1200 Sixth Avenue, Suite 900, ECL-110
Seattle WA 98101-3140
     Seattle wa 90101-5140
sheldrake.sean@epa.gov
Phone: 206/553-1220 / Fax: 206/553-0124
Region 10 Dive Team: http://yosemite.epa.gov/r10/oea.nsf/webpage/dive+team
Portland Harbor Cleanup:
      http://yosemite.epa.gov/r10/cleanup.nsf/sites/ptldharbor
> Deliveries: Parking Garage mailroom (1st floor)
> Visitors: Check-in @ PERC / Service Center on 12th floor:
> http://yosemite.epa.gov/r10/extaff.nsf/PERC/Visiting+Seattle
> ---- Forwarded by Sean Sheldrake/R10/USEPA/US on 04/22/2009 03:17 PM
     *"LaFranchise, Nicole" <Nicole.LaFranchise@portofportland.com>*
 > 04/22/2009 03:12 PM
     То
                       Sean Sheldrake/R10/USEPA/US@EPA, "Ken Fellows" <Kfellows@parametrix.com>
     CC
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       Subject
                       Weir discharge evaluation - T4 CDF
     Sean,
     Over the past several weeks, Anchor QEA has been providing me with estimates for the resumption of the Phase II work - among those task is the technical work related to evaluating the weir discharge from the CDF. This work includes the work plan, reasonable potential analysis (RPA), mixing zone study and associated project support for these efforts. The subcontractor estimate for this work came in at
> analysis (RPA), mixing zone study and associated project support for these efforts. The subcontractor estimate for this work came in at over $100,000. Considering that under very conservative assumptions, discharge through the weir would, at best, be no more than 2 days during CDF filling with T4 sediment, we wanted to carefully rethink this expenditure and whether it was truly beneficial to the project.

We have considered from a cost-benefit perspective the options of performing the weir discharge analysis compared to committing to a no weir discharge requirement during filling with T4 sediment. We have concluded that the cost of conducting the weir discharge evaluation work far outweighs any benefit when we can instead provide a commitment to EPA that no discharge from the weir will occur during
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> filling with T4 sediment. This is because it would be more
> cost-effective to manage the water through construction best
> management practices (BMPs), as necessary.
> The weir overflow analysis is based on an improbable combination of
conservative assumptions, including high dredge inflow rates,
inefficient dredge production rates (i.e. higher than expected water
content in the dredge slurry), long work days (i.e. 20 hours), low
> hydraulic conductivity in the berm material, and no management
intervention of construction activities. Under this unlikely
combination of conditions, the water balance model indicated the pond
might overtop the weir on Day 9 of an II-day dredging project, and
> discharge to the river for about one and a half days. Using more
reasonable and likely assumptions, overflow would not be predicted to
coccur at all. Further, the remaining dredge volume in Slip 3, and
thus the duration of hydraulic dredging, should be reduced with the
removal of the Phase I portion of the dredge prism. All things
considered, it is reasonable to expect the hydraulic dredge slurry can
be fully contained behind the weir, with no discharge, by
appropriately managing dredge filling rates and construction work
schedules if necessary.

Therefore, the Port would like to propose striking this effort from
the project and instead updating the model analysis with new Phase II
dredge inflow rates to determine conditions for no discharge (as
described above). No discharge evaluation will be necessary as the
Port will manage the dredging during Phase II to result in no weir
discharge to the river, including, if necessary, temporarily stopping
the dredge operation to allow for the water surface in the CDF to
equilibrate with the river.

> We will likely construct the berm with a weir or some type of
controlled overflow structure that allows water to be released for
emergency safety purposes. With such a structure in place, should a
future CDF filling event anticipate the need for weir discharge, then
that user (in concer

<mailto:nicole.lafranchise@portofportland.com>